

In the Specification:

Please replace paragraph **[0033]** with the following paragraph:

- **[0033]** The hot translation module 107 is configured to translate traces (e.g., a sequence of blocks) of the foreign program instructions 104 into native program instructions and may provide some level of optimization. The hot translation module 107 may use the intermediate representation module 109 to convert the foreign program instructions 104 into an intermediate representation (IR) (described below). The hot translation module 107 may also use the optimizer 111 to optimize the IR before the IR is translated into native program instructions. Some of the traces translated by the hot translation module 107 are loops ~~and~~ instrumented ~~the~~ IR with instructions to measure the loop's hot execution trip_count.—.